

REMARKS/ARGUMENTS

Applicants have received the Office Action dated January 23, 2008, in which the Examiner: 1) rejected Claims 1-5, 8-12 and 14-20 under 35 U.S.C. §102(e) as being anticipated by Terry (US Patent No. 7,046,651)(hereinafter *Terry*) and 2) rejected Claims 6 and 13 as being unpatentable over *Terry* in view of Chen et al. (US Patent Application Publication No. 2005/0025143)(hereinafter *Chen*).

Claims 1-20 as originally filed remain pending in this application. Applicants thank the Examiner for again indicating that Claim 7 would be allowable if rewritten in independent form. Applicants respectfully decline to so amend at this time. Based upon the arguments presented below, Applicants believe all claims to be in condition for allowance.

Claim Rejections Under 35 U.S.C. §102(e)

In the Office Action, the Examiner rejected Claims 1-5, 8-12 and 14-20 under 35 U.S.C. §102(e) as purportedly anticipated by *Terry*. Applicants respectfully traverse.

Independent Claim 1 recites, "[a]n arrangement for avoiding contention on a communication medium among devices including at least a transmitter and a receiver, the arrangement comprising:

a first portion configured to instruct the receiver to indicate that the communication medium is busy for a time period substantially longer than an actual frame transmission period being sent from the transmitter to the receiver; and

a second portion configured to prohibit the receiver from transmitting on the communication medium during the time period.

Independent Claim 10 recites, "[a] method for avoiding contention on a communication medium by devices including at least a transmitter and a receiver, the method comprising:

instructing a receiver to indicate that the communication medium is busy for a time period substantially longer than a frame being sent from the transmitter to the receiver; and
prohibiting the receiver from transmitting on the communication medium during the time period.

Independent Claim 16 recites, "[a] network including a communication medium on which contention is to be avoided, the network comprising:

a transmitting element, configured to transmit on the communication medium, a frame that includes an instruction that the communication medium is busy for a time period substantially longer than an actual transmission time of the frame that includes the instruction; and

a receiving element, configured to receive the frame that includes the instruction, and, in response to the instruction, to refrain from transmitting on the communication medium during the time period, so as to avoid the contention on the communication medium.

Terry fails to teach or disclose several of the claimed limitations. As just one example, *Terry* fails to teach or disclose "a first portion configured to instruct the receiver to indicate that the communication medium is busy for a time period substantially longer than an actual frame transmission period being sent from the transmitter to the receiver" (Claim 1), "instructing a receiver to indicate that the communication medium is busy for a time period substantially longer than a frame being sent from the transmitter to the receiver" (Claim 10) and "a transmitting element, configured to transmit on the communication medium, a frame that includes an instruction that the communication medium is busy for a time period substantially longer than an actual transmission time of the frame that includes the instruction" (Claim 16).

As an initial observation, Applicants respectfully note that the Examiner referred to "fig. 1" of *Terry* in the present rejection. As *Terry* has two figures – 1A and 1B – Applicants assume that the Examiner meant to refer to both of these figures, and accordingly answer.

A reading of the applied portions of *Terry*, as well as the rest of *Terry*, reflects that *Terry* is silent regarding any instructions/instructing that the communication medium is busy substantially longer than "an actual frame transmission period being sent" or "a frame being sent" or "an actual transmission time of the frame that includes the instruction". Moreover, the applied portion of *Terry* states:

"After the beacon frame 36, the PC delays one SIFS 38 and may send any of the following: a data-only frame, a data+poll frame 42, a poll-only frame, or a CFP-end frame. The PC maintains a list of stations for which it has data, and typically polls those stations first in order to piggyback that data with its poll of the station. Referring to FIG. 2A, the PC polls a first station and piggybacks data with that poll in a data+polling frame 42 (both data and poll are directed to the first station). Upon receiving the data, the first station responds with an acknowledgement (ACK), but itself piggybacks data (U1) on its ACK in a data+ACK frame 43. The first station is allowed a SIFS 38 to respond to the AP's poll, but may send its data (U1) to any station or to the PC. [If it is sent to a station other than the PC, that station has one SIFS to send its ACK, without piggybacking data, back to the first station.]"

"After receiving the data+ACK frame 43 from the first station (U1+ACK), the PC waits one SIFS and polls another station (or the same station). In the event the previous first station sent its data (U1) to the PC, the PC will piggyback an ACK for that first station in the data+poll it sends to a second station in a data+poll+ACK frame 44 (D2+ACK+Poll, data and poll directed to the second station, ACK directed to first station)."

(*Terry*, Column 8, lines 9-30). No instructions are sent that the communications medium is busy, much less for how long, much less for a time period substantially longer than a frame. In fact, as one reads more of *Terry*, it becomes clear why the polling set forth in the applied portion of *Terry* is occurring – to ensure a better identification of which channel (sub-carriers) on which the various stations are transceiving, and especially to determine the strength of channel (*Terry*'s "channel state"; *Terry*, Col. 8, line 42 - Col. 9, line 41). As is stated in *Terry*, upon receiving

the poll and data, the receiving station responds with an acknowledgement (ACK) within one SIFS 38 following the frame, instead of remaining silent. This response is contrary to the explicit claim language. Thus - and contrary to what *Terry* teaches - had the receiving station in *Terry* received instructions that a communication medium is busy substantially longer than "an actual frame transmission period being sent" or "a frame being sent" or "an actual transmission time of the frame that includes the instruction", the receiving station would have remained silent.

Another example missing limitation: As a result of *Terry*'s silence as to any such instructions/instructing, *Terry* is also silent as to any of the stations refraining from communicating as a result of having received such non-existent instructions; in fact, to the contrary, the stations are obligated to communicate after having received the frame. See, as one example, applied portions Col. 8, lines 9-30, recited above; see also, "Using that CSI, the PC then sends its data for the first station combined with an acknowledgement that it (the PC) received the data frame from the first station in a data+ACK frame 43. This obligates the first station to reply with an ACK only frame 48 that it received the data correctly." (emphasis added; *Terry*, Col. 9, lines 31-36). This obligation is more pointed in view of the fact the first station must reply and has only one SIFS after the end of a frame in which to do so. (*Terry*, Col. 8, lines 19-21). Thus, *Terry* fails to teach or disclose "a second portion configured to prohibit the receiver from transmitting on the communication medium during the time period" (Claim 1), "prohibiting the receiver from transmitting on the communication medium during the time period" (Claim 10), and "a receiving element, configured to receive the frame that includes the instruction, and, in response to the instruction, to refrain from transmitting on the communication medium during the time period" (Claim 16).

For at least these reasons, independent Claims 1, 10 and 16, together with their respective dependent claims, are not anticipated by *Terry*. Accordingly, Applicants respectfully request withdrawal of the rejection under Section 102 and allowance of Claims 1-5, 8-12 and 14-20.

Claim Rejections Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected Claims 6 and 13 under 35 U.S.C. §103(a) as allegedly obvious over *Terry* in view of *Chen*. Applicants respectfully traverse these rejections.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). In establishing a *prima facie* case for obviousness, it is often necessary "to look to interrelated teachings of multiple pates, the effects of demands known to the design community or present in the market place; and the background knowledge possessed by a person having ordinary skill in the art." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. ___, 127 S.Ct. 1727, 82 USPQ2d 1385, 1396 (2007)(Slip Opinion No. 04-1350 (U.S. April 30, 2007) at 14). Indeed, "the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined." *Id.* slip opinion at 2 (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). This analysis should be made explicitly. *Id.* slip opinion at 14 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006))("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness").

Additionally, a claim having several elements is *not* proved obvious merely by demonstrating that each of its elements was known in the prior art. *Id.* As such, the obviousness inquiry does not hinge on demonstrating that elements were known in the art. Rather, the obviousness inquiry focuses on whether the claimed subject matter would have been obvious to persons having ordinary skill in the art in view of the demands and practices of the design community at the of filing of the application. See *id.*

Moreover, the Applicant submits that, during the patent examination, the pending claims must be given an interpretation that is reasonable and consistent with the specification. See *In re Prate*, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969); *In re Morris*, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); see also M.P.E.P.

§2111 (describing the standards for claim interpretation during prosecution). Indeed, the *specification* is "the primary basis for construing the claims." *Phillips v AWH Corp.*, 415 F.3d 1303, 1315 (Fed.Cir. 2005). It is usually dispositive. See *id.* Interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. See *In re Cortright*, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); see also M.P.E.P. §2111. That is, recitations of a claim must be read as they would be interpreted by those of ordinary skill in the art. See *Rexnord Corp. v. Laliram Corp.*, 60 U.S.P.Q.2d 1851, 1854 (Fed. Cir. 2001); see also M.P.E.P. §2111.01. In summary, an Examiner, during prosecution, must interpret a claim recitation as one of ordinary skill in the art would reasonably interpret the claim in view of the specification. See *In re American Academy of Science Tech Center*, 70 U.S.P.Q.2d 1827 (Fed. Cir. 2004).

Although primary reference *Terry* is missing further claim limitations and element relationships, as discussed above with respect to independent Claims 1, 10 and 16, Applicants agree with the Examiner that *Terry* fails to teach or suggest "a SIGNAL 1 and SIGNAL 2" (Present Office Action, page 6, point 5). *Chen* is cited to purportedly meet this missing limitation. Unfortunately, the Examiner has failed to make a *prima facie* case for obviousness. In addition to *Chen* failing to teach, suggest or disclose the limitations for which it was applied, *Chen* is not cited for - and fails to meet - the deficiencies of *Terry*.

Thus, the missing claimed limitations and relationships in *Terry* and *Chen*, taken together or individually, are in sharp contrast to Applicants' claimed invention. Thus, dependent Claims 6 and 13 which depend from and add further limitations to independent Claims 1 and 10, respectively, are not obvious over *Terry* in view of *Chen*. Accordingly, Applicants respectfully request withdrawal of the rejection under Section 103 and allowance of dependent Claims 6 and 13.

Thus, all Claims 1-20 should be indicated as allowed.

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the

other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Texas Instruments Incorporated's Deposit Account No. 20-0668.

Respectfully submitted,

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